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The following is a listing of HBCU's conducting research and training projects with NASA centers. These FY 1984 data are intended to show the prospective proposer the nature of the efforts, funding levels of the projects, and the involvement of students in the projects. We recommend that the proposer consult the most recent issue of the NASA publication "Research and Technology Objectives Plans Summary" and/or a NASA technical monitor to ascertain current research interests and needs of the Agency.

University Project	Center	FY 84 $ Amount	Students
Alabama A&M University (AL)			
Research and Training in Intelligent Robotic Systems	MSFC	193,645	5
Advanced Interactive Analytical Integration and Mission Planning Database for the Space Station	MSFC	97,995	5
High Energy Cosmic Ray Interactions in Emulsion	MSFC	58,231	2
Effects of Soil Moisture and Pertinent Soil Diagnostic Properties on Thermal Infrared and Reflectance Characteristics	NSTL	32,663	1
Development of Remote Sensing Techniques Capable of Delineating Soils as an Aid to Soil Survey	NSTL	99,931	8
Solution Growth of Crystals in Zero Gravity Experiment for Materials Processing in Space	MSFC	301,900	2
AXAF Technology Program Support: The Analysis of High Resolution X-Ray Scattering Measurements	MSFC	10,207	1
Atmospheric Effects on Coherent Laser Systems	MSFC	49,660	4
MSFC Development Program	MSFC	46,500	0
Subtotal		**890,732**	**28**

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University Project	Center	FY 84 $ Amount	Students
Atlanta University (GA)			
Small Business Innovation Research Conference and Workshop	HQ	15,000	0
Inhomogeneous Stellar Media	LaRC	157,127	2
Subtotal		172,127	2
Bowie State College (MD)			
Design of Interactive Frame Based Cluttered Desktop System	GSFC	65,182	1
Training of Students in Engineering Related Subjects	GSFC	86,000	10
Holographic Gratings for Spectrographic Applications Study of Aberrations	GSFC	22,039	4
Training of Undergraduate Students in Sciences and Engineering	GSFC	104,082	16
Characterization of the Physico-Chemical Properties of Polymeric Materials for Aerospace Flights	GSFC	63,373	1
Subtotal		340,676	32

University Project	Center	FY 84 $ Amount	Students
Fisk University (TN)			
Thermal Characterization of Crystals	MSFC	66,000	2
Optical Characterization of Zero-Gravity Grown Crystals	MSFC	70,000	0
Subtotal		136,000	2
Florida A&M Univesity (FL)			
Relationship of Angiotensin Rhythms in Plasma and CNS to Neurogenic Hypertension	ARC	86,044	7
The Degradation of Hydrazine Monomethylhydrazine and Unsymmetrical Dimethlhydrazine by Microorganisms	KSC	78,994	2
A Study Entitled Influence of Biological Clock on Effects of Diazepam in Humans	JSC	69,980	0
Space Life Sciences Training Program	KSC	66,555	30
Study of Influence of Amines on Diurnal Toxicity of Stimulants and Depressants	ARC	123,400	7
Regulation of the Adrenal Cortex Function During Stress	ARC	82,168	4
Subtotal		507,141	50

University Project	Center	FY 84 $ Amount	Students
Hampton University (VA)			
Advanced Solar Energetics	LaRC	156,400	4
Direct Solar Pumped Iodine Laser Amplifier	LaRC	40,092	2
Architectural Design of a Continuously Manned Space Station: Individual and Total Architectural Configuration	LaRC	117,447	3
Electron Transport and Charge Buildup in Multilayered Configurations	LaRC	22,573	2
Radiative Transfer Model for Remote Sensing of Laser Induced Fluorescence of Phytoplankton in Non-Homogeneous Turbid Waters	HQ	56,131	1
Summer Faculty Fellowship Program in Research	HQ	364,991	0
Subtotal		757,634	12

University Project	Center	FY 84 $ Amount	Students
Howard University (DC)			
An Experiment in the Development of Fault Tolerant Applications Software	LaRC	124,132	2
Development of Epitaxial Cubic Silicon Carbide	LeRC	250,000	2
Real-Type Observations of X-Ray Diffraction Patterns	GSFC	10,000	1
Snow Cover, Snowmelt and Runoff in the Himalayan River Basins	GSFC	85,800	2
Large Space Structures Institute	LaRC	500,000	6
Research Relative to a Class of Optically Controlled Millimeter Wave Devices	GSFC	49,924	1
An Integrated Laboratory and Observational Study of the Inner Coma of Halley's Comet	HQ	129,764	2
Teacher Engineering Orientation Program	GSFC	20,041	0
A Simulation Network for Electrical Engineering	GSFC	260,300	3
Summer Faculty Fellowship Program in Research	HQ	278,890	0
NASA Graduate Student Researchers Program	HQ	21,032	2
The Dynamics and Control of Large Flexible Space Structures	LaRC	42,778	1
Laser Induced Photoluminescence Studies of Primary Photochemical Production Processes of Cometary Radicals	HQ	55,000	1
Subtotal		2,012,481	26

University Project	Center	FY 84 $ Amount	Students
Jackson State University (MS)			
Electronic Spectroscopy of Molecular Ions	HQ	115,010	2
Subtotal		**115,010**	**2**
Lincoln University (PA)			
Development of Computer-Aided Medical Information Management Systems	GSFC	300,000	13
Introduction to Aero Space Engineering	GSFC	120,000	12
Subtotal		**420,000**	**25**

University Project	Center	FY 84 $ Amount	Students
Morgan State University			
A Magnetomineral Study of Exsolation in Titanomagnetites	GSFC	94,388	1
The Investigation, Identification, Analysis and Interpretation of New Possibilities in Transfer Technology	GSFC	21,967	5
Graduate Student Research Program	GSFC	56,500	12
Subtotal		172,855	18
Norfolk State University			
Carbon-13 Nuclear Magnetic Resonance in Graphite Epoxy Composites: The Potential for Characterizing the Fiber-Matrix Interface	LaRC	47,842	3
Subtotal		47,842	3

University Project	Center	FY 84 $ Amount	Students
North Carolina A&T State University (NC)			
Heteroepitaxial Growth of III-V Semiconductor Compounds by Metal-Organic Chemical Vapor Deposition for Device Applications	LaRC	49,575	1
Effect of Fatigue and Thermal Loads on Graphite Fiber-Reinforced Glass Matrix Composites	LaRC	130,149	5
Dynamics and Control of Orbiting Grid Structures and the Synchronously Deployable Beam	LaRC	164,823	2
Study of the Effect of Non-Sand-Grain Surface Roughness on Heat Transfer and Drag in Subsonic Boundary Layer Flow	LaRC	91,829	2

University Project	Center	FY 84 $ Amount	Students
Mid-Infrared Laser Heterodyne Spectroscopy System Packaging Using Flexible Waveguides	LaRC	36,236	1
Development of Computer Models for Correlating Data of Film Cooling of Nose Cone under Hypersonic Flow	LaRC	92,015	2
A Study of Reactive Plasma Depositioned Thin Films	LaRC	198,558	6
North Carolina A&T Student Space Shuttle Program/Design Phase	ARC	64,091	28
Material Growth and Characterization of III-V Compounds for Solid State Devices	LaRC	175,000	3
Subtotal		1,002,276	50

University Project	Center	FY 84 $ Amount	Students
Prairie View A&M University (TX)			
Charged Particle Radiation Damage to Material and VLSI Devices	JSC	365,606	6
Subtotal		**365,606**	**6**
Southern University and A&M College (LA)			
Automation of NASA Headquarters Resources Management	HQ	93,910	2
Development, Administration and Evaluation of Transportable College Level Courses in the Access of the NASA/RECON System	HQ	149,214	2
Subtotal		**243,124**	**4**
Tennessee State University (TN)			
Graduate and Undergraduate Aerospace Fellowship Program	LeRC	35,554	9
Study of the Wear Process in the Space Shuttle Main Engine (SSME) High Pressure Oxygen Turbo Pump Ball Bearings	MSFC	220,000	2
Subtotal		**255,554**	**11**

University Project	Center	FY 84 $ Amount	Students
Tuskegee Institute (AL)			
Characterization of Polymer Adhesives for Composites	LaRC	99,593	1
Characterization of Advanced Electric Propulsion Systems	LeRC	62,822	1
Graduate and Undergraduate Aerospace Fellowship Program	LeRC	54,643	9
Morphometrics of Cellular Damage in Mice Receiving Whole Body Irradiation	ARC	55,000	0
NASA Graduate Student Researchers Program	HQ	15,000	1
Subtotal		287,058	12

University Project	Center	FY 84 $ Amount	Students
University of the District of Columbia (DC)			
A Saturday Academy in Engineering, Mathematics and Computer Science for Academically Talented Students from the Metropolitan Washington Area	HQ	191,840	13
Subtotal		191,840	13
University of Maryland—Eastern Shore (MD)			
Engineering and Pre-Engineering Activities	GSFC	110,000	12
Subtotal		110,000	12
TOTAL		**$8,027,956**	**308**